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(54) Title: SYSTEMS AND METHODS FOR DETECTING THE PRESENCE OF DEPOSITS IN FLUID FLOW CONDUITS

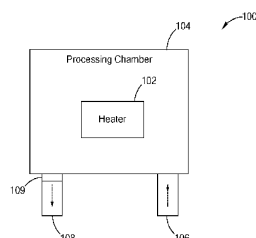


FIG. 1A

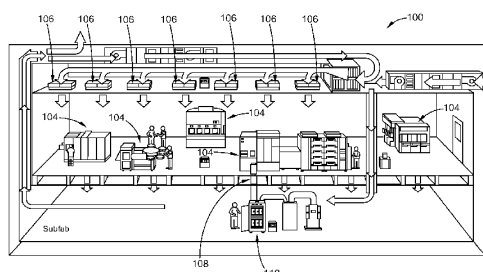


FIG. 1B

(57) Abstract: A method of detecting accumulation of material deposits within a fluid flow conduit includes providing, by a controller, an excitation signal to a heating element of the fluid flow conduit. The method includes obtaining, by the controller, thermodynamic data of the fluid flow conduit in response to providing the excitation signal, where the thermodynamic data includes heat flux data, diffusivity data, time data, temperature differential data, or a combination thereof. The method includes determining, by the controller, an amount of material deposits based on the thermodynamic data.

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